

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-51 (cancelled).

52. (Currently Amended) A data center system including:
a heat exchanger; and

a substantially sealed, substantially airtight cabinet sized for housing a vertical array of heat-producing units, the cabinet having an exterior shell and the system including an interior divider wall disposed inside the cabinet, the shell and divider wall providing a heat exchanger chamber in which the heat exchanger is disposed, the shell and divider wall providing an equipment chamber separate from the heat exchanger chamber and adapted to support the array such that the array cooperates with the shell and divider wall in use to define a first plenum, the first plenum having a first inlet defined by the divider wall for receiving a flow of cooling gas and having a first outlet defined by a plurality of openings through the array whereby the first plenum communicates with the openings in use to exhaust substantially all of the flow of cooling ~~fluid~~ gas through the openings and hence through the array, wherein the divider wall is configured such that the first inlet at least partially vertically overlaps with the first plenum to allow the first inlet to admit the gas to the first plenum in a substantially horizontal direction.

53. (Previously presented) The system of claim 52 wherein the divider wall is configured such that the first inlet will admit the gas over a substantial vertical length of the cabinet.

54. (Previously presented) The system of claim 52 wherein the divider wall is configured such that the first inlet will admit the gas substantially uniformly over a vertical length of the first inlet.

55. (Previously presented) The system of claim 54 wherein the first inlet is at least one substantially vertical slot beside the first plenum.

56. (Previously presented) The system of claim 54 wherein the first inlet extends substantially a full vertical extent of at least one of the array and the first plenum.

57. (Previously presented) The system of claim 52 wherein a second plenum is defined between the chamber shell and the array for receiving the flow of gas that has passed through the array, the second plenum having a second inlet defined by a second plurality of openings through the array, and a second outlet defined by the divider wall such that the gas is directed horizontally from the equipment chamber.

58. (Previously presented) The system of claim 52 further comprising a mechanism configured to re-circulate the gas through the first inlet after flowing through the array and to cool the gas before the gas re-circulates through the first inlet, the mechanism disposed and configured such that the gas flows substantially horizontally during the entire circulation of the gas.

59. (Previously presented) The system of claim 58 wherein the cabinet shell and divider wall are configured to direct the gas to the mechanism for cooling and impelling the gas.

60. (Previously presented) The system of claim 59 wherein the mechanism includes at least one heat exchanger and at least one impeller.

61. (Previously presented) The system of claim 60 wherein the heat exchanger is upstream of the impeller.

62. (Previously presented) The system of claim 60 wherein the heat exchanger is downstream of the impeller.

63. (Previously presented) The system of claim 60 wherein the mechanism includes a plurality of impellers disposed in a substantially vertical array.

64. (Previously presented) The system of claim 60 wherein each impeller is associated with a non-return valve that closes in the event of failure of that impeller.

65. (Previously presented) The system of claim 60 wherein at least a first heat exchanger of the at least one heat exchanger is a module replaceable during use of the array and system.

66. (Previously presented) The system of claim 65 wherein the first heat exchanger is mounted to the cabinet on runners configured to support the first heat exchanger when the first heat exchanger is withdrawn from the cabinet.

67. (Previously presented) The system of claim 60 wherein at least a second heat exchanger of the at least one heat is coupled to coolant supply ducts by dry-break connectors.

68. (Previously presented) The system of claim 58 wherein the mechanism is disposed in a mechanism chamber defined by the cabinet shell and the divider wall, and the equipment chamber and the mechanism are configured to circulate the gas between the mechanism chamber and the equipment chamber.

69. (Previously presented) The system of claim 68 wherein the general flow of the gas is substantially horizontal throughout the circulation.

70. (Previously presented) The system of claim 69 wherein the flow of the gas through the equipment chamber is substantially parallel to and opposed to the flow of the gas through the mechanism chamber.

71. (Previously presented) The system of claim 68 wherein the cabinet includes at least one door configured to provide access to the mechanism chamber independently of access to the equipment chamber.

72. (Previously presented) The system of claim 71 wherein the at least one door is a plurality of doors that have independent locks each capable of permitting access to only one of the equipment and the mechanism chambers.

73. (Previously presented) The system of claim 72 wherein the door provide substantially vertically upright walls of the cabinet.

74. (Previously presented) The system of claim 52 further including heat transfer means disposed in the cabinet for carrying heat away from the cabinet.

75. (Previously presented) The system of claim 52 further comprising a door configured to provide selective access to the heat-producing units based on at least one of an environmental compatibility inside and outside the cabinet, and whether an outer enclosure around the cabinet is closed.

76. (Previously presented) The system of claim 52 further comprising an outer enclosure disposed around a substantial portion of the cabinet.

77. (Previously presented) The system of claim 76 further comprising an air conditioner disposed and configured to control at least one of temperature and humidity of air between the cabinet and the outer enclosure.

78. (Previously presented) The system of claim 76 wherein the outer enclosure includes external panels displaced from walls of the outer enclosure.

79-96. (Cancelled)